



PTO/SB/08a/b (07-06)

Approved for use through 09/30/2006. OMB 0651-0031

U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

<b>Substitute for form 1449A/B/PTO</b>  <b>INFORMATION DISCLOSURE STATEMENT BY APPLICANT</b>  (Use as many sheets as necessary)				<b>Complete if Known</b>	
				Application Number	10/586,015
				Filing Date	July 14, 2006
				First Named Inventor	Eric T. Ahrens
				Art Unit	1645
				Examiner Name	Not Yet Assigned
Sheet	1	of	5	Attorney Docket Number	CAMU-P01-002

U.S. PATENT DOCUMENTS					
Examiner Initials	Cite No. <sup>1</sup>	Document Number	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
		Number-Kind Code <sup>2</sup> (if known)			
	AA	US-20020016002	02/07/2002	Toma et al.	
	AB	US-20020045259	04/18/2002	Lim et al.	
	AC	US-20020068045	06/06/2002	Reubinoﬀ et al.	
	AD	US-20020123143	09/05/2002	Toma et al.	
	AE	US-20030003574	01/02/2003	Toma et al.	
	AF	US-20050079131	04/14/2005	Lanza et al.	
	AG	US-4,558,279	12/10/1985	Ackerman et al.	
	AH	US-4,570,004	02/11/1986	Lagow et al.	
	AI	US-4,714,680	12/22/1987	Civin	
	AJ	US-4,783,401	11/08/1988	Horan et al.	
	AK	US-4,990,283	02/05/1991	Visca et al.	
	AL	US-4,996,041	02/26/1991	Arai et al.	
	AM	US-5,061,620	10/29/1991	Tsukamoto et al.	
	AN	US-5,114,703	05/19/1992	Wolf et al.	
	AO	US-5,330,681	07/19/1994	Brunetta et al.	
	AP	US-5,397,562	03/14/1995	Mason et al.	
	AQ	US-5,437,994	08/01/1995	Emerson et al.	
	AR	US-5,486,359	01/23/1996	Caplan et al.	
	AS	US-5,539,059	07/23/1996	Bierschenk et al.	
	AT	US-5,589,376	12/31/1996	Anderson et al.	
	AU	US-5,643,741	07/01/1997	Tsukamoto et al.	
	AV	US-5,716,827	02/10/1998	Tsukamoto et al.	
	AW	US-5,750,397	05/12/1998	Tsukamoto et al.	
	AX	US-5,763,197	06/09/1998	Tsukamoto et al.	
	AY	US-5,753,506	05/19/1998	Johe	
	AZ	US-5,766,948	06/16/1998	Gage et al.	
	AA1	US-5,824,489	10/20/1998	Anderson et al.	
	AB1	US-5,827,735	10/27/1998	Young et al.	
	AC1	US-5,843,780	12/01/1998	Thomson	
	AD1	US-5,851,832	12/22/1998	Weiss et al.	
	AE1	US-5,914,108	06/22/1999	Tsukamoto et al.	
	AF1	US-5,925,567	06/20/1999	Kraus et al.	
	AG1	US-5,942,225	08/24/1999	Bruder et al.	
	AH1	US-5,972,703	10/26/1999	Long et al.	
	AI1	US-6,040,180	03/21/2000	Johe	
	AJ1	US-6,090,622	07/18/2000	Gearhart et al.	
	AK1	US-6,171,610	01/09/2001	Vacanti et al.	
	AL1	US-6,190,910	02/20/2001	Kusakabe et al.	
	AM1	US-6,200,806	03/13/2001	Thomson	
	AN1	US-6,245,566	06/12/2001	Gearhart et al.	
	AO1	US-6,331,406	12/18/2001	Gearhart et al.	
Examiner Signature				Date Considered	



PTO/SB/08a/b (07-06)

Approved for use through 09/30/2006. OMB 0651-0031

U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

<b>Substitute for form 1449A/B/PTO</b>  <b>INFORMATION DISCLOSURE STATEMENT BY APPLICANT</b>  (Use as many sheets as necessary)				<b>Complete if Known</b>	
				Application Number	10/586,015
				Filing Date	July 14, 2006
				First Named Inventor	Eric T. Ahrens
				Art Unit	1645
				Examiner Name	Not Yet Assigned
Sheet	2	of	5	Attorney Docket Number	CAMU-P01-002

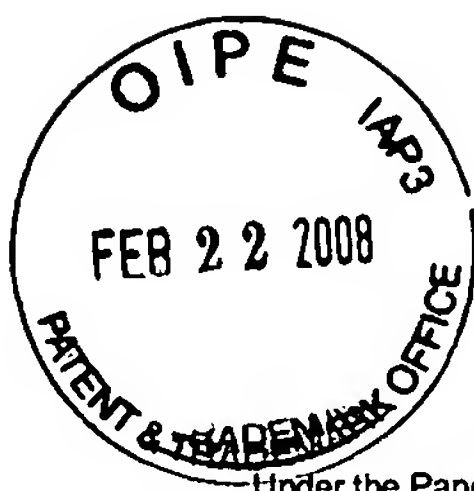
	AP1	US-6,361,996	03/26/2002	Rao et al.	
	AQ1	US-6,468,794	10/22/2002	Uchida et al.	
	AR1	US-6,511,967	01/28/2003	Weissleder et al.	

FOREIGN PATENT DOCUMENTS						
Examiner Initials	Cite No. <sup>1</sup>	Foreign Patent Document	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear	T <sup>6</sup>
		Country Code <sup>3</sup> -Number <sup>4</sup> -Kind Code <sup>5</sup> (if known)				
	BA	WO-94/21303	09/29/1994	Alliance Pharmaceutical Corp.		
	BB	WO-98/20907	05/22/1998	University of Southern California		
	BC	WO-00/02654	01/20/2000	Metallgesellschaft AG		
	BD	WO-00/53795	09/14/2000	University of Pittsburgh of the Commonwealth System of Higher Education		
	BE	EP-0 307 087	06/08/1994	Alliance Pharmaceutical Corp.		
	BF	EP-0 307 863	07/24/1991	Air Products & Chemicals, Inc.		
	BG	DE-2 242 191	04/10/1972	Koritsu Kikai Kogyo K.K.		
	BH	DE-42 03 254	05/02/1996	Max-Planck-Gesellschaft zur Forderung der Wissenschaften eV		

EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant. CITE NO.: Those application(s) which are marked with an single asterisk (\*) next to the Cite No. are not supplied (under 37 CFR 1.98(a)(2)(iii)) because that application was filed after June 30, 2003 or is available in the IFW. <sup>1</sup> Applicant's unique citation designation number (optional). <sup>2</sup> See Kinds Codes of USPTO Patent Documents at [www.uspto.gov](http://www.uspto.gov) or MPEP 901.04. <sup>3</sup> Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). <sup>4</sup> For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. <sup>5</sup> Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST.16 if possible. <sup>6</sup> Applicant is to place a check mark here if English language Translation is attached.

NON PATENT LITERATURE DOCUMENTS			
Examiner Initials	Cite No. <sup>1</sup>	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T <sup>2</sup>
	CA	Ahrens and Dubowitz, "Peripheral somatosensory fMRI in mouse at 11.7T," <i>NMR Biomed.</i> , 14:318-324 (2001)	
	CB	Ahrens et al., "Receptor-mediated endocytosis of iron-oxide particles provides efficient labeling of dendritic cells for in vivo MR imaging," <i>Magnetic Resonance in Medicine</i> , 49:1006-1013 (2003).	
	CC	Ahrens et al., "A model for MRI contrast enhancement using T <sub>1</sub> agents," <i>Proc. Natl. Acad. Sci. USA</i> , 95:8443-8448	
	CD	Dardzinski and Sotak, "Rapid tissue oxygen tension mapping using 19F inversion-recovery echo-planar imaging of perfluoro-15-crown-5-ether," <i>Magnetic Resonance in Medicine</i> , 32(1):88-97 (1994).	
	CE	Derossi et al, "The Third Helix of the Antennapedia Homeodomain Translocates through Biological Membranes," <i>The Journal of Biological Chemistry</i> , 269(14):10444-10450 (1994).	

Examiner Signature		Date Considered	
-----------------------	--	--------------------	--



PTO/SB/08a/b (07-06)

Approved for use through 09/30/2006. OMB 0651-0031

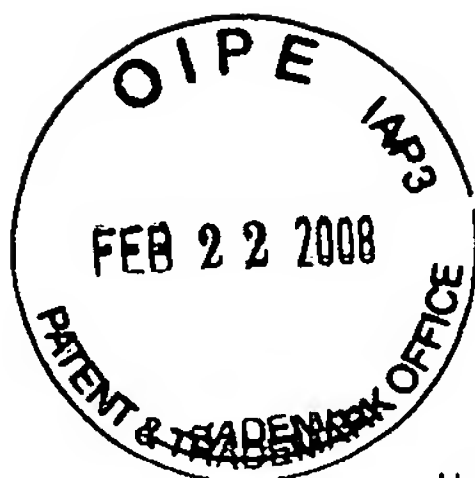
U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

Substitute for form 1449A/B/PTO				<b>Complete if Known</b>	
				Application Number	10/586,015
<b>INFORMATION DISCLOSURE STATEMENT BY APPLICANT</b>				Filing Date	July 14, 2006
				First Named Inventor	Eric T. Ahrens
				Art Unit	1645
				Examiner Name	Not Yet Assigned
(Use as many sheets as necessary)				Attorney Docket Number	CAMU-P01-002
Sheet	3	of	5		

	CF	Derossi et al., "Cell Internationalization of the Third Helix of the Antennapedia Homeodomain Is Receptor-Independent," <i>The Journal of Biological Chemistry</i> , 271(30):18188-18193 (1996).	
	CG	Dodd et al., "Normal T-cell response and in vivo magnetic resonance imaging of T cells loaded with HIV transactivator-peptide-derived superparamagnetic nanoparticles", <i>Journal of Immunological Methods</i> , 256(1-2):89-105 (2001).	
	CH	Dousset et al., "In vivo macrophage activity imaging in the central nervous system detected by magnetic resonance", <i>Magnetic Resonance in Medicine</i> , 41(2): 329-333 (1999).	
	CI	Duong and Kim, "In vivo MR measurements of regional arterial and venous blood volume fractions in intact rat brain", <i>Magnetic Resonance in Medicine</i> , 43(3):393-402 (2000).	
	CJ	Eidelberg et al., "19F NMR imaging of blood oxygenation in the brain", <i>Magnetic Resonance in Medicine</i> , 6(3):344-52 (1988).	
	CK	Feili-Hariri, M. et al., "Immunotherapy of NOD mice with bone marrow-derived dendritic cells", <i>Diabetes</i> , 48:2300-2308 (1999).	
	CL	Fishman et al., "Oxygen-sensitive 19F NMR imaging of the vascular system in vivo", <i>Magnetic Resonance in Medicine</i> , 5(4):279-85 (1987).	
	CM	Forstrom et al., "18F-FDG Labelling of Human Leukocytes," <i>Nuclear Medicine Communications</i> , 21(7):691-694 (2000).	
	CN	Frankel et al., "Cellular uptake of the tat protein from human immunodeficiency virus," <i>Cell</i> , 55:1189-1193 (1989).	
	CO	Friedrich and Soriano, "Promoter traps in embryonic stem cells: a genetic screen to identify and mutate developmental genes in mice," <i>Genes &amp; Development</i> , 5:1513-1523 (1991).	
	CP	Girolomoni et al., "Establishment of a Cell-Line with Features of Early Dendritic Cell Precursors from Fetal Mouse Skin", <i>European Journal of Immunology</i> , 25(8):2163-2169 (1995).	
	CQ	Green et al., "Autonomous functional domains of chemically synthesized human immunodeficiency virus tat trans-activator protein," <i>Cell</i> , 55:1179-1188 (1988).	
	CR	Gritti et al., "Multipotent neural stem cells reside into the rostral extension and olfactory bulb of adult rodents," <i>The Journal of Neuroscience</i> , 22(2):437-445 (2002).	
	CS	Hoehn et al., "Monitoring of implanted stem cell migration in vivo: A highly resolved in vivo magnetic resonance imaging investigation of experimental stroke in rat", <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 99(25):16267-16272 (2002).	
	CT	Josephson et al., "High-efficiency intracellular magnetic labeling with novel superparamagnetic-tat peptide conjugates", <i>Bioconjugate Chemistry</i> , 10(2):186-191 (1999).	
	CU	Kanno et al., "Macrophage accumulation associated with rat cardiac allograft rejection detected by magnetic resonance imaging with ultrasmall superparamagnetic iron oxide particles", <i>Circulation</i> , 104(8):934-938 (2001).	
	CV	Kimura et al., "Neurite outgrowth of PC12 cells is suppressed by wortmannin, a specific inhibitor of phosphatidylinositol 3-kinase," <i>The Journal of Biological Chemistry</i> , 269:18961-18967 (1994).	
	CW	Krause et al., "Multi-organ, multi-lineage engraftment by a single bone marrow-derived stem cell," <i>Cell</i> , 105:369-377 (2001).	
	CX	Kuppuswamy et al., "Multiple functional domains of Tat, the trans-activator of HIV-1, defined by mutational analysis," <i>Nucleic Acids Research</i> , 17:3551-3561 (1989).	
	CY	Lagasse et al., "Purified hematopoietic stem cells can differentiate into hepatocytes in vivo," <i>Nature Medicine</i> , 6(11):1229-1234 (2000).	

Examiner Signature		Date Considered	
--------------------	--	-----------------	--



PTO/SB/08a/b (07-06)

Approved for use through 09/30/2006. OMB 0651-0031

U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE

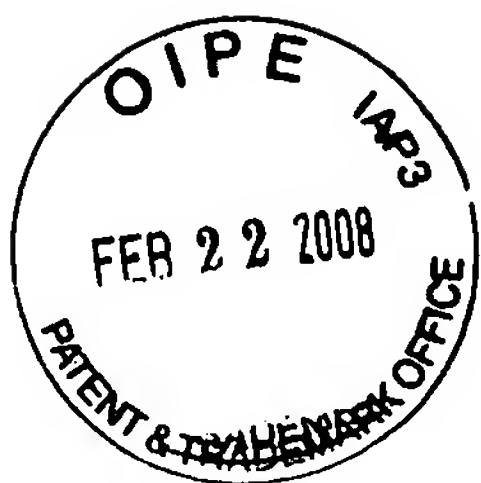
Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

<b>Substitute for form 1449A/B/PTO</b>  <b>INFORMATION DISCLOSURE STATEMENT BY APPLICANT</b>  (Use as many sheets as necessary)				<b>Complete if Known</b>	
				Application Number	10/586,015
				Filing Date	July 14, 2006
				First Named Inventor	Eric T. Ahrens
				Art Unit	1645
				Examiner Name	Not Yet Assigned
Sheet	4	of	5	Attorney Docket Number	CAMU-P01-002

	CZ	Lewin et al., "Tat peptide-derivatized magnetic nanoparticles allow in vivo tracking and recovery of progenitor cells", <i>Nature Biotechnology</i> , 18(4):410-414 (2000).	
	CA1	Lutz et al., "Measurement of oxygen tensions in the abdominal cavity and in the skeletal muscle using 19F-MRI of neat PFC droplets", <i>Oxygen Transport to Tissue Xix</i> , 428:569-572 (1997).	
	CB1	Mason, "Non-invasive physiology: <sup>19</sup> F NMR of perfluorocarbons," <i>Art. Cells, Blood Subs., and Immob. Biotech.</i> , 22(4):1141-1153 (1994)	
	CC1	McGoron et al., "Perfluorocarbon Distribution to Liver, Lung and Spleen of Emulsions of Perfluorotributylamine (Ftba) in Pigs and Rats and Perfluorooctyl Bromide (Pfob) in Rats and Dogs by F-19 Nmr- Spectroscopy", <i>Artificial Cells Blood Substitutes and Immobilization Biotechnology</i> , 22(4):1243-1250 (1994).	
	CD1	Means et al., "Chemical modifications of proteins: history and applications," <i>Bioconjugate Chemistry</i> , 1:2-12 (1990).	
	CE1	Moore et al., "Uptake of dextran-coated monocrystalline iron oxides in tumor cells and macrophages", <i>Journal of Magnetic Resonance Imaging</i> , 7(6):1140-1145 (1997).	
	CF1	Noth et al., "In-Vivo Measurement of Partial Oxygen-Pressure in Large Vessels and in the Reticuloendothelial System Using Fast 19f-Mri", <i>Magnetic Resonance in Medicine</i> , 34(5):738-745 (1995).	
	CG1	Noth et al., "Perfluoro-15-crown-5-ether labelled macrophages in adoptive transfer experimental allergic encephalomyelitis", <i>Artificial Cells Blood Substitutes and Immobilization Biotechnology</i> , 25(3):243-254 (1997).	
	CH1	Perez et al., "Antennapedia homeobox as a signal for the cellular internalization and nuclear addressing of a small exogenous peptide," <i>Journal of Cell Science</i> , 102:717-722 (1992).	
	CI1	Pittenger et al., "Multilineage potential of adult human mesenchymal stem cells," <i>Science</i> , 284:143-147 (1999).	
	CJ1	Pluchino, S. et al., "Injection of adult neurospheres induces recovery in a chronic model of multiple sclerosis", <i>Nature</i> , 422(6933):688-6940 (2003).	
	CK1	Qiu et al., "Null mutation of Dlx-2 results in abnormal morphogenesis of proximal first and second branchial arch derivatives and abnormal differentiation in the forebrain," <i>Genes &amp; Development</i> , 9:2523-2538 (1995).	
	CL1	Ruben et al., "Structural and functional characterization of human immunodeficiency virus tat protein," <i>Journal of Virology</i> , 63:1-8 (1989).	
	CM1	Sanchez et al., "Highly Concentrated 1,2-bis (perfluoroalkyl) iodoethene emulsions for use as contrast agents for diagnosis," <i>Journal of Fluorine Chemistry</i> , 73(2):259-264 (1995).	
	CN1	Schoepf, U. et al., "Intracellular magnetic labeling of lymphocytes for in vivo trafficking studies", <i>Biotechniques</i> , 24(4): 24(4):642-6, 648-51 (1998).	
	CO1	Schulze, E. et al., "Cellular uptake and trafficking of a prototypical magnetic iron oxide label in vitro", <i>Invest Radiol</i> , 30(10):604-610 (1995).	
	CP1	Weissleder, R. et al., "Magnetically labeled cells can be detected by MR imaging", <i>Journal of Magnetic Resonance Imaging</i> , 7(1):258-263 (1997).	
	CQ1	Ye et al., "In vivo detection of acute rat renal allograft rejection by MRI with USPIO particles", <i>Kidney International</i> , 61(3):1124-1135 (2002).	
	CR1	Yeh, T.C. et al., "In-vivo dynamic mri tracking of rat t-cells labeled with superparamagnetic iron-oxide particles", <i>Magnetic Resonance in Medicine</i> , 33:200-208 (1995).	

Examiner Signature		Date Considered	
--------------------	--	-----------------	--





PTO/SB/08a/b (07-06)

Approved for use through 09/30/2006. OMB 0651-0031

U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

<div>Substitute for form 1449A/B/PTO</div> <div><b>INFORMATION DISCLOSURE STATEMENT BY APPLICANT</b></div> <div>(Use as many sheets as necessary)</div>				<b>Complete if Known</b>	
				Application Number	10/586,015
				Filing Date	July 14, 2006
				First Named Inventor	Eric T. Ahrens
				Art Unit	1645
				Examiner Name	Not Yet Assigned
Sheet	5	of	5	Attorney Docket Number	CAMU-P01-002

	CS1	Zhao et al., "Human bone marrow stem cells exhibit neural phenotypes and ameliorate neurological deficits after grafting into the ischemic brain of rats," <i>Experimental Neurology</i> , 174:11-20 (2002).	
--	-----	--	--

EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

<sup>1</sup>Applicant's unique citation designation number (optional). <sup>2</sup>Applicant is to place a check mark here if English language Translation is attached.

Examiner Signature		Date Considered	
-----------------------	--	--------------------	--